

## Author Search

=&gt; FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 10:00:52 ON 19 APR 2007

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FILE COVERS 1907 - 19 Apr 2007 VOL 146 ISS 17

FILE LAST UPDATED: 18 Apr 2007 (20070418/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=&gt; D QUE L27

L25 175 SEA FILE=HCAPLUS ABB=ON PLU=ON DRATZ E?/AU  
 L26 369 SEA FILE=HCAPLUS ABB=ON PLU=ON GRIECO P?/AU  
 L27 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 AND L26

=&gt; D IBIB ED ABS L27 1-2

L27 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1060666 HCAPLUS Full-text

DOCUMENT NUMBER: 142:34869

TITLE: Zwitterionic dyes for labeling in proteomic and other biological analyses

INVENTOR(S): Dratz, Edward A.; Grieco, Paul A.

PATENT ASSIGNEE(S): Montana State University, USA

SOURCE: U.S. Pat. Appl. Publ., 45 pp., Cont.-in-part of U.S. Ser. No. 623,447.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 2004248203	A1	20041209	US 2004-761818	20040120
US 2004106153	A1	20040603	US 2003-623447	20030718
PRIORITY APPLN. INFO.:			US 2002-396950P	P 20020718
			US 2003-623447	A2 20030718

ED Entered STN: 10 Dec 2004

AB The invention relates to compns. and methods useful in the labeling and identification of proteins. The invention provides for highly soluble zwitterionic dye mols. where the dyes and associated side groups are non-

titratable and maintain their net zwitterionic character over a broad pH range, for example, between pH 3 and 12. These dye mols. find utility in a variety of applications, including use in the field of proteomics. Light or heavy stable isotope labels can be addnl. used. The zwitterionic labels are stable at pH 3-12.

L27 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:80695 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140:129775  
 TITLE: Zwitterionic fluorescent dyes for labeling in  
 proteomic and other biological analyses  
 INVENTOR(S): Dratz, Edward A.; Grieco, Paul A.  
 PATENT ASSIGNEE(S): Montana State University, USA  
 SOURCE: PCT Int. Appl., 67 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004009598	A1	20040129	WO 2003-US22397	20030718
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2493104	A1	20040129	CA 2003-2493104	20030718
AU 2003251999	A1	20040209	AU 2003-251999	20030718
EP 1543007	A1	20050622	EP 2003-765680	20030718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			US 2002-396950P	P 20020718
			WO 2003-US22397	W 20030718

ED Entered STN: 01 Feb 2004

AB The invention relates to compns. and methods useful in the labeling and identification of proteins. The invention provides for highly soluble zwitterionic dye mols. where the dyes and associated side groups are non-titratable and maintain their net zwitterionic character over a broad pH range, e.g. between pH 3 and 12. These BODIPY dye mols. find utility in a variety of applications, including use in the field of proteomics.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Structure Search

=> FILE CAPLUS

FILE 'CAPLUS' ENTERED AT 10:01:26 ON 19 APR 2007

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FILE COVERS 1907 - 19 Apr 2007 VOL 146 ISS 17

FILE LAST UPDATED: 18 Apr 2007 (20070418/ED)

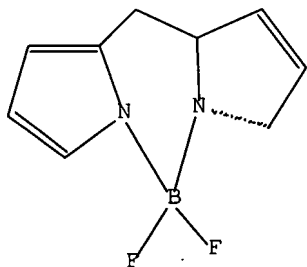
Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

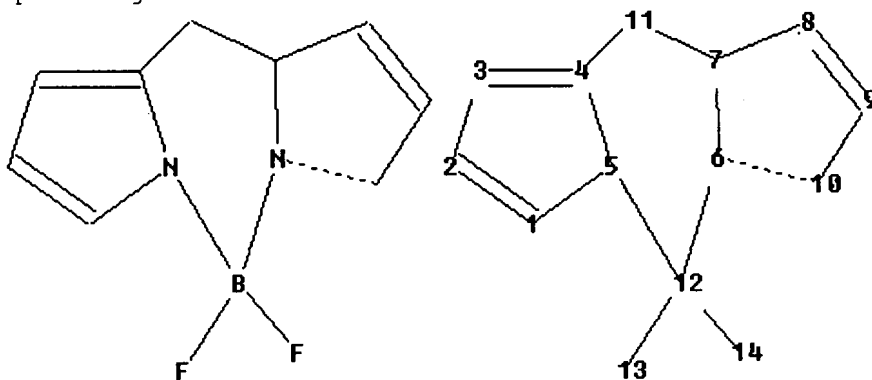
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> D QUE L4

L1 STR



Structure attributes must be viewed using STN Express query preparation:  
Uploading strD.str



chain nodes :

13 14

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12

chain bonds :

12-13 12-14

ring bonds :

1-2 1-5 2-3 3-4 4-5 4-11 5-12 6-7 6-10 6-12 7-8 7-11 8-9 9-10

exact/norm bonds :

1-2 1-5 2-3 3-4 4-5 4-11 5-12 6-7 6-10 6-12 7-8 7-11 8-9 9-10

exact bonds :

12-13 12-14

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:Atom 13:CLASS 14:CLASS

L3 7 SEA FILE=REGISTRY SSS FUL L1

L4 2 SEA FILE=CAPLUS ABB=ON PLU=ON L3

=&gt; S L4 NOT L27

175 DRATZ E?/AU

369 GRIECO P?/AU

L28 2 L4 NOT L27

=&gt; D IBIB ED ABS HITSTR 1-2

L28 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1060761 CAPLUS Full-text

DOCUMENT NUMBER: 142:36914

TITLE: Multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector molecules

INVENTOR(S): Kiessling, Laura L.; Griffith, Byron R.; Gestwicki, Jason E.; Strong, Laura

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 76 pp., Cont.-in-part of U.S. Ser. No. 815,296.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004248801	A1	20041209	US 2004-806056	20040322
US 2003125262	A1	20030703	US 2001-815296	20010321
PRIORITY APPLN. INFO.:			US 2000-191014P	P 20000321
			US 2001-815296	A2 20010321
			US 2003-456778P	P 20030321

ED Entered STN: 10 Dec 2004

AB This invention provides multivalent ligands which carry or display at least one recognition element (RE), and preferably a plurality of recognition elements, for binding directly or indirectly to cells or other biol. particles or more generally by binding to any biol. mol. The multivalent ligands provided can most generally function for binding or targeting to any biol. particle or mol. and particularly to targeting of cells or cell types or viruses, for cell aggregation and generally for macromol. assembly of biol. macromols. The multivalent ligands of this invention are generally applicable for creating scaffolds (assemblies) of chemical or biol. species, including without limitation, antigens, epitopes, ligand binding groups, ligands for cell receptors (cell surface receptors, transmembrane receptors and cytoplasmic receptors), and various macromols. (nucleic acids, carbohydrates, saccharides, proteins, peptides, etc.). In these scaffolds, the number, spacing, relative positioning and relative orientation of recognition elements can be controlled. Multivalent ligands of this invention can carry or display at least one signal recognition element (SRE), and preferably a plurality of signal recognition elements, and modulate biol. responses in biol. systems. The SRE is selected from an amino acid, peptide, protein, derivatized peptide, epitope, monosaccharide, disaccharide, polysaccharide, nucleic acid, cell nutrient, antigen, small drug-like compound, hapten, antibody or fragment, or cell surface receptor. Multivalent ligands of this invention can carry or display at least one binding recognition element (BRE), and preferably a plurality of binding recognition elements, optionally in combination with one or more SRE, and modulate biol. responses in biol. systems. The invention also relates to methods for aggregating biol. particles and macromols. and for modulating biol. response employing the multivalent ligands provided.

IT 807614-28-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(multivalent ligands comprising signal recognition element and binding recognition element for regulating cellular responses and designing diagnostic and therapeutic effector mols.)

RN 807614-28-4 CAPLUS

CN Boron, difluoro[N-(2-(β-D-galactopyranosyloxy)ethyl)-2-[5-oxo-5-[[[5-[[[4-[2-[[[5-(2-thienyl)-1H-pyrrol-2-yl-κN]methyl]-2H-pyrrol-5-yl-κN]phenoxy]acetyl]amino]pentyl]amino]-1-pentenyl]-4-(2-phenylethenyl)cyclopentanecarboxamidato]-, (T-4)-, homopolymer (9CI) (CA INDEX NAME)

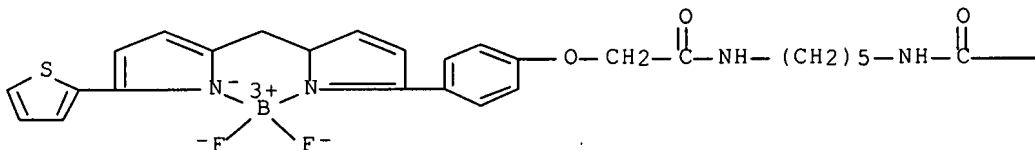
CM 1

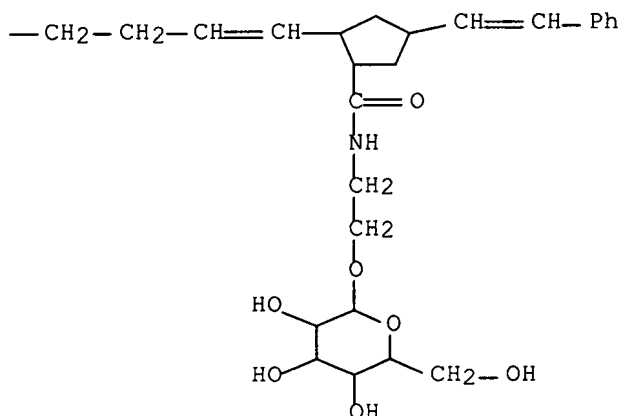
CRN 807614-27-3

CMF C53 H64 B F2 N5 O10 S

CCI CCS

PAGE 1-A





L28 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:347778 CAPLUS Full-text

DOCUMENT NUMBER: 141:98405

TITLE: Octaethylporphyrin and expanded porphyrin complexes containing coordinated BF<sub>2</sub> groups

AUTHOR(S): Koehler, Thomas; Hodgson, Michael C.; Seidel, Daniel; Veauthier, Jacqueline M.; Meyer, Sylvie; Lynch, Vincent; Boyd, Peter D. W.; Brothers, Penelope J.; Sessler, Jonathan L.

CORPORATE SOURCE: Department of Chemistry and Biochemistry, The University of Texas at Austin, Austin, TX, 78712-0165, USA

SOURCE: Chemical Communications (Cambridge, United Kingdom) (2004), (9), 1060-1061  
CODEN: CHCOFS; ISSN: 1359-7345

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:98405

ED Entered STN: 29 Apr 2004

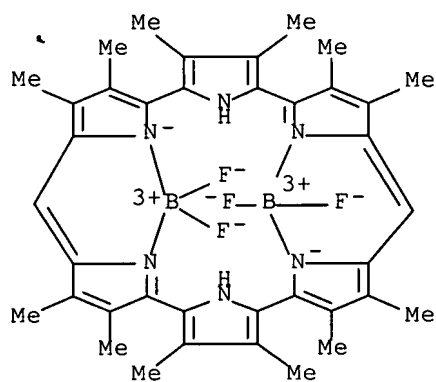
AB In contrast to octaethylporphyrin, which forms a very labile bis-BF<sub>2</sub> complex, treatment of the hexa- and octapyrrolic expanded porphyrins amethyrin and [32]octaphyrin with BF<sub>3</sub>·OEt<sub>2</sub> under standard reaction and work-up conditions gives rise to stable, nonlabile mono- and bis-BF<sub>2</sub> complexes. These were readily characterized by, inter alia, x-ray diffraction analyses.

IT 714216-84-9P 714216-86-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and crystal structure of)

RN 714216-84-9 CAPLUS

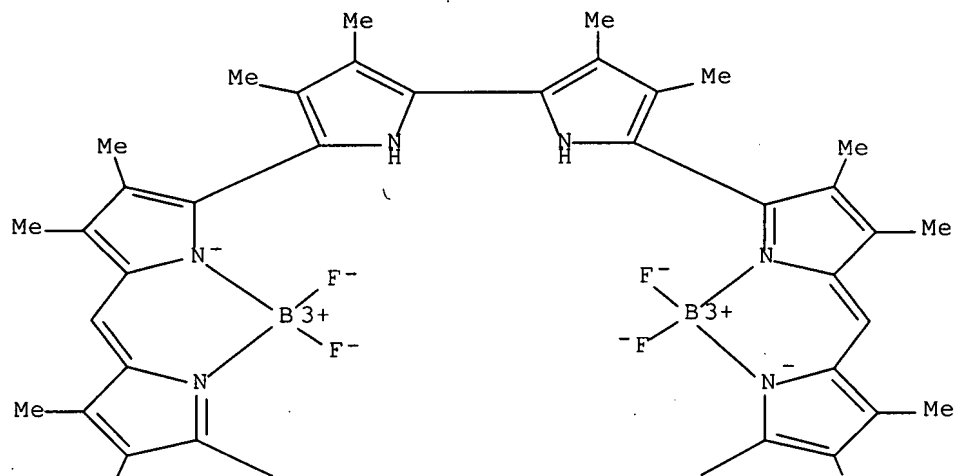
CN Boron, [μ-[3,4,7,8,12,13,16,17,20,21,25,26-dodecamethyl-27,28,29,30,31,32-hexaazaheptacyclo[22.2.1.12,5.16,9.111,14.115,18.119,22]dotriaconta-1(27),2,4,6,8,10,12,14(30),15,17,19,21,23,25-tetradecaenato(2-)-κN27,κN28:κN30,κN31]]tetrafluorodi- (9CI) (CA INDEX NAME)



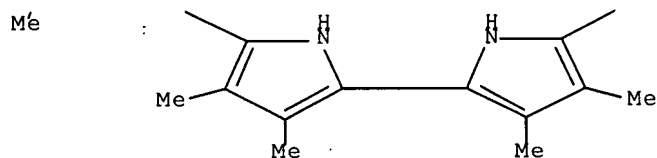
RN 714216-86-1 CAPLUS

CN Boron, tetrafluoro[μ-(3,4,7,8,11,12,16,17,20,21,24,25,28,29,33,34-hexadecamethyl-35,36,37,38,39,40,41,42-octaazanonacyclo[30.2.1.12,5.16,9.110,13.115,18.119,22.123,26.127,30]dotetracont-1(35),2,4,6,8,10,12,14,16,18(39),19,21,23,25,27,29,31,33-octadecaenato(2-)-κN35,κN36:κN39,κN40]]di- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

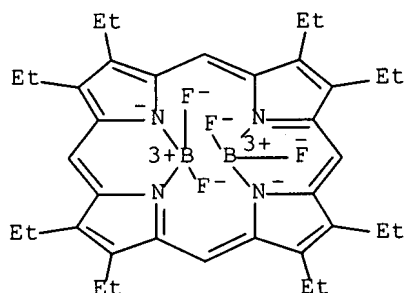


IT 714216-83-8P 714216-85-0P 714216-87-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

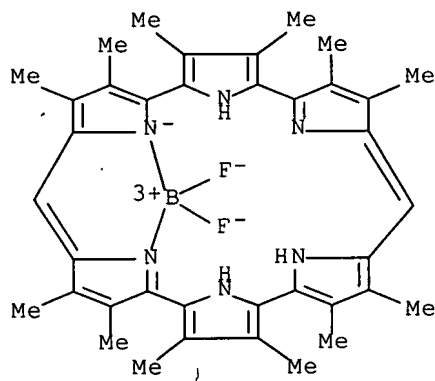
RN 714216-83-8 CAPLUS

CN Boron, tetrafluoro[μ-[2,3,7,8,12,13,17,18-octaethyl-21H,23H-porphinato(2-)-κN21,κN22:κN23,κN24]]di- (9CI) (CA INDEX NAME)



RN 714216-85-0 CAPLUS

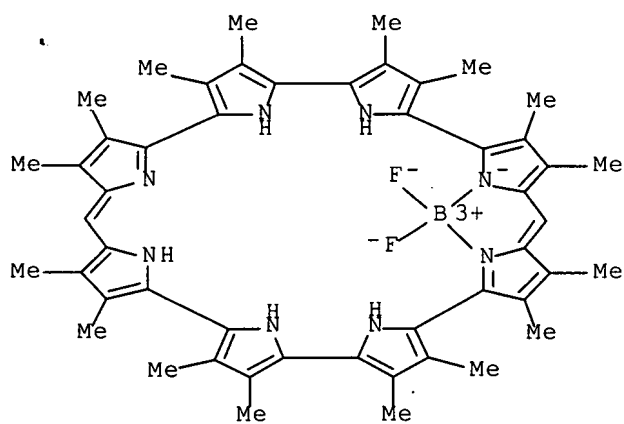
CN Boron, (3,4,7,8,12,13,16,17,20,21,25,26-dodecamethyl-27,28,29,30,31,32-hexaazaheptacyclo[22.2.1.12,5.16,9.111,14.115,18.119,22]dotriacontal(27),2,4,6,8,10,12,14(30),15,17,19,21,23,25-tetradecaenato-κN27,κN28)difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 714216-87-2 CAPLUS

CN Boron, difluoro(3,4,7,8,11,12,16,17,20,21,24,25,28,29,33,34-hexadecamethyl-35,36,37,38,39,40,41,42-octaazanonacyclo[30.2.1.12,5.16,9.110,13.115,18.119,22.123,26.127,30]dotetracontal(35),2,4,6,8,10,12,14,16,18(39),19,21,23,25,27,29,31,33-octadecaenato-κN35,κN36)-, (T-4)- (9CI) (CA INDEX NAME)





REFERENCE COUNT:

18

THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## Text Search

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FILE LAST UPDATED: 18 Apr 2007 (20070418/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=&gt; D QUE L24

L10	1928	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	ZWITTERIONS+OLD/CT
L11	161200	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	DYES+OLD,NT/CT
L12	429672	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	ISOTOPES+OLD,NT/CT
L13	36	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L10 AND L11
L14	1	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L13 AND L12
L15	8798	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	FLUORESCENT INDICATORS+OLD,NT/CT
L16	2	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L13 AND L15
L17	3	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L10 AND L15
L18	3	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	(L14 OR L16 OR L17)
L19	34	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L13 NOT L18
L20	12	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L19 AND P/DT
L21	10	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L20 AND (PY<=2004 OR AY<=2004 OR PRY<=2004)
L22	24	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L19 NOT L21
L23	17	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L22 AND PY<=2004
L24	30	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	(L18 OR L21 OR L23)

=&gt; D IBIB ED ABS L24 HITSTR 1-30

L24 ANSWER 1 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:107517 HCAPLUS Full-text

DOCUMENT NUMBER: 146:333393

TITLE: Fluorescent Biomembrane Probe for Ratiometric Detection of Apoptosis

AUTHOR(S): Shynkar, Vasyl V.; Klymchenko, Andrey S.; Kunzelmann, Corinne; Duportail, Guy; Muller, Christian D.; Demchenko, Alexander P.; Freyssinet, Jean-Marie; Mely, Yves

CORPORATE SOURCE: Photophysique des Interactions Moleculaires, UMR 7175

CNRS, Institut Gilbert Laustriat, Faculte de  
Pharmacie, Universite Louis Pasteur, Strasbourg 1,  
Illkirch, 67401, Fr.

SOURCE: Journal of the American Chemical Society (2007),  
129(7), 2187-2193

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 31 Jan 2007

AB Herein, the authors developed the first ratiometric fluorescent probe for apoptosis detection. This probe incorporates selectively into the outer leaflet of the cell plasma membrane and senses the loss of the plasma membrane asymmetry occurring during the early steps of apoptosis. The high specificity to the plasma membranes was achieved by introduction into the probe of a membrane anchor, composed of a zwitterionic group and a long (dodecyl) hydrophobic tail. The fluorescence reporter of this probe is 4'-(diethylamino)-3-hydroxyflavone, which exhibits excited-state intramolecular proton transfer (ESIPT), resulting in two-band emission highly sensitive to the lipid composition of the biomembranes. Fluorescence spectroscopy, flow cytometry, and microscopy measurements show that the ratio of the two emission bands of the probe changes dramatically in response to apoptosis. This response reflects the changes in the lipid composition of the outer leaflet of the cell plasma membrane because of the exposure of the anionic phospholipids from the inner leaflet at the early steps of apoptosis. Being ratiometric, the response of the new probe can be easily quantified on an absolute scale. This allows monitoring by laser scanning confocal microscopy the degree and spatial distribution of the apoptotic changes at the cell plasma membranes, a feature that can be hardly achieved with the commonly used fluorescently labeled annexin V assay.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 2 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:332232 HCAPLUS Full-text

DOCUMENT NUMBER: 144:327370

TITLE: Printable hydrogel for biosensors

INVENTOR(S): Bartetzko, Norbert; Specht, Bernfried; Kunz, Michael

PATENT ASSIGNEE(S): Albatros Technologies G.m.b.H. & Co. K.-G., Germany

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2006011062	A2	20060202	WO 2005-IB3267	20050520 <--
WO 2006011062	A3	20060713		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM,			

Serial No.: 10/761,818

KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG,  
KZ, MD, RU, TJ, TM

EP 1751546 A2 20070214 EP 2005-795088 20050520 <--

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA,  
HR, LV, MK, YU

PRIORITY APPLN. INFO.: US 2004-573090P P 20040520 <--  
WO 2005-IB3267 W 20050520

ED Entered STN: 11 Apr 2006

AB Methods and apparatus are provided for manufacturing an analyte detecting device. In one embodiment, the method comprises providing a substrate, applying a plurality of layer of materials on said substrate; applying a layer containing at least one mediator; and screen printing a hydrogel on the layer.

L24 ANSWER 3 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1078196 HCAPLUS Full-text

DOCUMENT NUMBER: 143:372828

TITLE: Stable foamed compositions comprising alkoxyated silicone compounds for hairstyling

INVENTOR(S): Baumeister, Jan; Maillefer, Sarah; Rehmann, Andre

PATENT ASSIGNEE(S): Switz.

SOURCE: U.S. Pat. Appl. Publ., 14 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005222001	A1	20051006	US 2005-98171	20050404 <--
DE 102004016683	A1	20051027	DE 2004-102004016683	20040405 <--
EP 1588692	A1	20051026	EP 2005-3965	20050224 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,  
BA, HR, IS, YU

JP 2005289994 A 20051020 JP 2005-94005 20050329 <--

PRIORITY APPLN. INFO.: DE 2004-102004016683A 20040405 <--

ED Entered STN: 07 Oct 2005

AB The present invention relates to stable foamed compns. These compns. contain water and at least one alkoxyated silicone compound, selected from one or more of the following compound classes: bis-alkoxyated silicone compds., alkoxyated silicone waxes, water-insol. alkoxyated silicone compds. and esters of fatty acids and alkoxyated silicone compds. The solid foamed compns. preferably contain addnl. consistency-imparting agents, which are waxy substances that are solid at 25°C. and/or thickeners. The mixture of ingredients, from which the stable foamed composition is made, is foamed with air and/or an inert gas and has a stable d. of less than or equal to 0.8 g/cm2.

L24 ANSWER 4 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:185371 HCAPLUS Full-text

DOCUMENT NUMBER: 142:257290

TITLE: System for sensitive and rapid determination of antimicrobial susceptibility

INVENTOR(S): Goldberg, David A.; Howson, David C.; Metzger, Steven W.; Buttry, Daniel A.; Saavedra, Steven Scott

PATENT ASSIGNEE(S): USA

## Serial No.: 10/761,818

SOURCE: U.S. Pat. Appl. Publ., 94 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005048599	A1	20050303	US 2004-888828	20040708 <--
AU 2004273783	A1	20050331	AU 2004-273783	20040708 <--
CA 2532414	A1	20050331	CA 2004-2532414	20040708 <--
WO 2005027714	A2	20050331	WO 2004-US22025	20040708 <--
WO 2005027714	A3	20060921		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AZ, BH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1648286	A2	20060426	EP 2004-809482	20040708 <--
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US 2007037225	A1	20070215	US 2005-303803	20051216 <--
PRIORITY APPLN. INFO.:			US 2003-486605P	P 20030712 <--
			US 2004-571479P	P 20040513 <--
			US 2004-888828	A2 20040708 <--
			WO 2004-US22025	W 20040708 <--
			US 2004-637423P	P 20041216 <--
			US 2004-638989P	P 20041222 <--

ED Entered STN: 04 Mar 2005

AB The present invention relates to moving microorganisms to a surface, where they are grown in the presence and absence of antimicrobials, and by monitoring the growth of the microorganisms over time in the two conditions, their susceptibility to the antimicrobials can be determined. The microorganisms can be moved to the surface through electrophoresis, centrifugation or filtration. When the movement involves electrophoresis, the presence of oxidizing and reducing reagents lowers the voltage at which electrophoretic force can be generated and allows a broader range of means by which the target can be detected. Monitoring can comprise optical detection, and most conveniently includes the detection of individual microorganisms. The microorganisms can be stained in order to give information about their response to antimicrobials.

L24 ANSWER 5 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:14485 HCAPLUS Full-text

DOCUMENT NUMBER: 142:108364

TITLE: Charged emulsions for site-specific micrometer and nanometer scale deposition and applications in the manufacture of DNA chips

INVENTOR(S): Hastwell, Peter John; Kaethner, Timothy Mark

PATENT ASSIGNEE(S): Raustech Pty Ltd., Australia

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000970	A1	20050106	WO 2004-AU863	20040630 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004251791	A1	20050106	AU 2004-251791	20040630 <--
EP 1648965	A1	20060426	EP 2004-737484	20040630 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
PRIORITY APPLN. INFO.:			AU 2003-903296	A 20030630 <--
			WO 2004-AU863	W 20040630 <--

ED Entered STN: 07 Jan 2005

AB The invention relates to novel emulsions which are useful for manufacture of solid phase DNA arrays of the type generally known as DNA chips. An emulsion including a continuous phase, a discontinuous phase which is immiscible in the continuous phase, and optionally a surfactant, the surfactant has a first part which is compatible with the continuous phase and a second part which is compatible with the discontinuous phase. The continuous phase has a high volume resistivity and the discontinuous phase is elec. charged. The discontinuous phase can be a reagent, a solvent which carries an active chemical reagent or a carrier liquid for a solid or insol. liquid dispersed in the discontinuous phase. The discontinuous phase also includes an activated nucleoside amidite or an activated oligonucleotide. The surfactant, if present, is selected to not significantly reduce the volume resistivity of the continuous phase. The emulsion can also include a charge control agent. The emulsions can be used for the electrostatically controlled placement of matter in a spatially defined manner from the discontinuous phase for combinatorial chemical and micrometer and nanometer scale deposition with or without reaction.

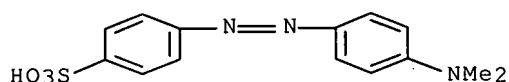
IT 547-58-0, Methyl orange

RL: NUU (Other use, unclassified); USES (Uses)

(charged emulsions for site-specific micrometer and nanometer scale deposition and applications in manufacture of DNA chips)

RN 547-58-0 HCAPLUS

CN Benzenesulfonic acid, 4-[2-[4-(dimethylamino)phenyl]diazenyl]-, sodium salt (1:1) (CA INDEX NAME)



● Na

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2004:1060666 HCAPLUS Full-text  
DOCUMENT NUMBER: 142:34869  
TITLE: Zwitterionic dyes for labeling in proteomic and other biological analyses  
INVENTOR(S): Dratz, Edward A.; Grieco, Paul A.  
PATENT ASSIGNEE(S): Montana State University, USA  
SOURCE: U.S. Pat. Appl. Publ., 45 pp., Cont.-in-part of U.S. Ser. No. 623,447.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004248203	A1	20041209	US 2004-761818	20040120
US 2004106153	A1	20040603	US 2003-623447	20030718
PRIORITY APPLN. INFO.:			US 2002-396950P	P 20020718
			US 2003-623447	A2 20030718

ED Entered STN: 10 Dec 2004

AB The invention relates to compns. and methods useful in the labeling and identification of proteins. The invention provides for highly soluble zwitterionic dye mols. where the dyes and associated side groups are non-titratable and maintain their net zwitterionic character over a broad pH range, for example, between pH 3 and 12. These dye mols. find utility in a variety of applications, including use in the field of proteomics. Light or heavy stable isotope labels can be addnl. used. The zwitterionic labels are stable at pH 3-12.

L24 ANSWER 7 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2004:707208 HCAPLUS Full-text  
DOCUMENT NUMBER: 141:367369  
TITLE: Remarkable solvent effects on first hyperpolarizabilities of zwitterionic merocyanine dyes: ab initio TD-DFT/PCM approach  
AUTHOR(S): Ray, Paresh Chandra  
CORPORATE SOURCE: Department of Chemistry, Jackson State University, Jackson, MS, 39217, USA  
SOURCE: Chemical Physics Letters (2004), 395(4-6), 269-273  
CODEN: CHPLBC; ISSN: 0009-2614  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

ED Entered STN: 30 Aug 2004

AB We present a quantum-chemical anal. of the solvent effect on mol. structure and first hyperpolarizabilities of a series of zwitterionic mols. The mol. geometries are obtained via B3LYP/6-31G\*\* optimization including self-consistent reaction field/polarizable continuum model approach, while the dynamics non-linear optical (NLO) properties are calculated with the time-dependent d. functional theory/sum-over-state method including solvent

effects. It was found that solvents play a remarkable role on the structure and first hyperpolarizabilities of zwitterionic dyes. Changing the solvent from low to high dielec. causes not only an increase in magnitude of  $\beta$  but also a change in sign, therefore passing through zero at intermediate dielec. There are clearly important consequences from this, in choice of solvent and mol. environment when evaluating NLO mols.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:579497 HCAPLUS Full-text

DOCUMENT NUMBER: 142:109704

TITLE: Why fluorescent probes for endoplasmic reticulum are selective: an experimental and QSAR-modelling study  
AUTHOR(S): Colston, J.; Horobin, R. W.; Rashid-Doubell, F.; Padiani, J.; Johal, K. K.

CORPORATE SOURCE: Autonomic Physiology Unit, Institute of Biomedical & Life Sciences, The University of Glasgow, Glasgow, G12 8QQ, UK

SOURCE: Biotechnic & Histochemistry (2003), 78(6), 323-332

CODEN: BIHIEU; ISSN: 1052-0295

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Jul 2004

AB The basis of the selectivity of fluorochromes routinely used to visualize the endoplasmic reticulum (ER) in live cells remains obscure. To clarify this, interactions of living cells with fluorochromes of varied physicochem. properties were analyzed exptl. and numerically using a quant. structure activity relationship anal. (QSAR). Routine selective ER probes were found to be amphipathic, lipophilic cations with moderate-sized conjugated systems. The moderately lipophilic character permits probe uptake by passive diffusion without nonspecific accumulation in biomembranes. The moderately amphipathic character favors uptake into the ER, perhaps owing to its high concentration of zwitterionic lipid head-groups. The QSAR model rationalizes the impractical character of some ER probes mentioned in the literature, and could permit design of novel ER probes with different emission colors. The possibility of using the QSAR model as a tool to predict the accumulation of xenobiotics in the ER of living cells is illustrated by the localization of certain antipsychotic drugs in cultured cells.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 9 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:971924 HCAPLUS Full-text

DOCUMENT NUMBER: 140:13698

TITLE: Delivery of substance to target sites using multilayer particles comprising charge switch materials

INVENTOR(S): Harper, Garry Robert; Cooper, Paula; Baker, Matthew John

PATENT ASSIGNEE(S): Dna Research Innovations Limited, UK

SOURCE: PCT Int. Appl., 110 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003101494      A1      20031211      WO 2003-GB2417      20030602 <--
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    GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
    LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
    PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
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RW:  GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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    BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
CA 2487304          A1      20031211      CA 2003-2487304      20030602 <--
AU 2003232355      A1      20031219      AU 2003-232355      20030602 <--
EP 1545626          A1      20050629      EP 2003-756071      20030602 <--
R:    AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
JP 2006501156      T      20060112      JP 2004-508848      20030602 <--
US 2006204584      A1      20060914      US 2004-516203      20041130 <--
PRIORITY APPLN. INFO.:      GB 2002-12826      A      20020531 <--
                                WO 2003-GB2417      W      20030602 <--

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ED Entered STN: 14 Dec 2003

AB Materials and method are disclose for delivering a desired substance to a target site, using a layered carrier in which the carrier and the substance together form at least three layers which associate by ionic interaction at the first pH, where at least one layer comprises a charge switch material which comprises an ionizable group and which has a pos. charge at a first pH and a charge which is less pos., neutral or neg. at a second pH, at least one layer comprises a polyionic polymer which is neg. charged at the first pH and at least one layer comprises the desired substance. Preferred carriers are based on the charge switch material poly Bis-Tris and the polyionic polymer polyacrylic acid. The desired substance is selected from a nucleic acid, pharmaceutically active compound, protein, carbohydrate, growth factor, hormone, enzyme, vaccine, cell, cell component, virus, fertilizer, pesticide, insecticide, herbicide, fungicide, vitamin, feed supplement, imaging agent, dye, chelating agent, cosmetic, paint, detergent, lipid, food supplement and neutraceutical.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 10 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:542885 HCAPLUS Full-text

DOCUMENT NUMBER: 140:27584

TITLE: A Spectroscopic Study on Ground- and Excited-State Proton Transfer Reactions of Coumarin Derivatives

AUTHOR(S): Kuznetsova, R. T.; Savenkova, N. S.; Kopylova, T. N.; Reznichenko, A. V.; Tavrizova, M. A.

CORPORATE SOURCE: Kuznetsov Physicotechnical Institute, Tomsk State University, Tomsk, 634050, Russia

SOURCE: High Energy Chemistry (Translation of Khimiya Vysokikh Energii) (2003), 37(4), 246-252  
CODEN: HIECAP; ISSN: 0018-1439

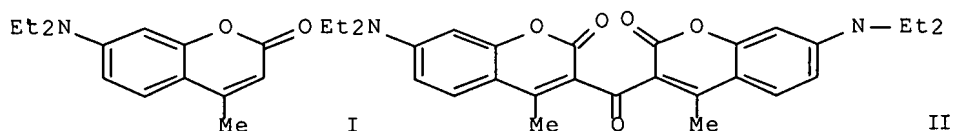
PUBLISHER: MAIK Nauka/Interperiodica Publishing

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 16 Jul 2003

GI



AB Interaction of Coumarin I, its 3-aldehyde derivative (II), and biscoumarin (III) with solvents of varying acidity (water and ethanol with an alkali or acid admixt.) was studied by following changes in their absorption and luminescence properties. The reasons for weak emission ability of neutral ethanolic solns. of 3-substituted derivs. of Coumarin I were revealed.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 11 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:280815 HCAPLUS Full-text

DOCUMENT NUMBER: 138:400446

TITLE: Application of hydrophobic interaction displacement chromatography for an industrial protein purification  
AUTHOR(S): Sunasara, Khurram M.; Xia, Fang; Gronke, Robert S.; Cramer, Steven M.

CORPORATE SOURCE: Department of Chemical Engineering, Rensselaer Polytechnic Institute, Troy, NY, USA

SOURCE: Biotechnology and Bioengineering (2003), 82(3), 330-339  
CODEN: BIBIAU; ISSN: 0006-3592

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 11 Apr 2003

AB Recently it has been established that low mol. weight displacers can be successfully employed for the purification of proteins in hydrophobic interaction chromatog. (HIC) systems. This work investigates the utility of this technique for the purification of an industrial protein mixture. The study involved the separation of a mixture of three protein forms, that differed in the C-terminus, from their aggregate impurities while maintaining the same relative ratio of the three protein forms as in the feed. A batch high-throughput screening (HTS) technique was employed in concert with fluorescence spectroscopy for displacer screening in these HIC systems. This methodol. was demonstrated to be an effective tool for identifying lead displacer candidates for a particular protein/stationary-phase system. In addition, these results indicate that surfactants can be employed at concns. above their CMCs as effective displacers. Displacement of the recombinant proteins with PEG-3400 and the surfactant Big Chap was shown to increase the productivity as compared to the existing step-gradient elution process.

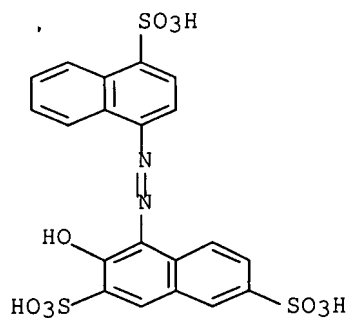
IT 915-67-3, Amaranth 2783-94-0, Sunset yellow

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)

(application of hydrophobic interaction displacement chromatog. for industrial protein purification)

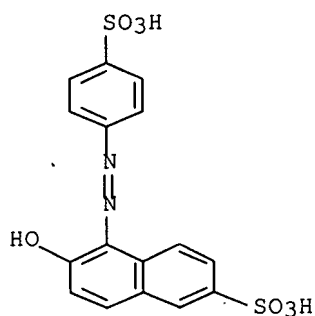
RN 915-67-3 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-hydroxy-4-[2-(4-sulfo-1-naphthalenyl)diazenyl]-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

RN 2783-94-0 HCAPLUS  
CN 2-Naphthalenesulfonic acid, 6-hydroxy-5-[(4-sulfophenyl)azo]-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 12 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2003:58264 HCAPLUS Full-text  
DOCUMENT NUMBER: 138:86086  
TITLE: DNA microarrays based on absorptive attachment of oligonucleotide probes to positively charged surface  
INVENTOR(S): Hogan, Michael; Lemeshko, Sergy; Belosludtsev, Yuri; Powdrill, Tom; Mitra, Rahul  
PATENT ASSIGNEE(S): Baylor College of Medicine, USA  
SOURCE: PCT Int. Appl., 59 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: **Patent**  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003006675      A2      20030123      WO 2002-US22103      20020711 <--
WO 2003006675      A3      20030501
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    PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
    UA, UG, UZ, VN, YU, ZA, ZM, ZW
RW:  GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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    CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
CA 2453524          A1      20030123      CA 2002-2453524      20020711 <--
US 2003134299      A1      20030717      US 2002-193938      20020711 <--
EP 1417337          A2      20040512      EP 2002-748133      20020711 <--
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    IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
JP 2004534546      T      20041118      JP 2003-512432      20020711 <--
IN 2004DN00086      A      20060224      IN 2004-DN86        20040112 <--
PRIORITY APPLN. INFO.:      US 2001-304500P      P      20010711 <--
                                WO 2002-US22103      W      20020711 <--

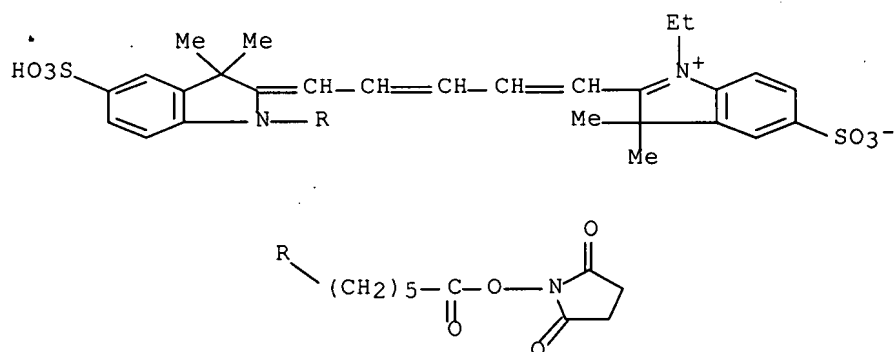
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ED Entered STN: 24 Jan 2003

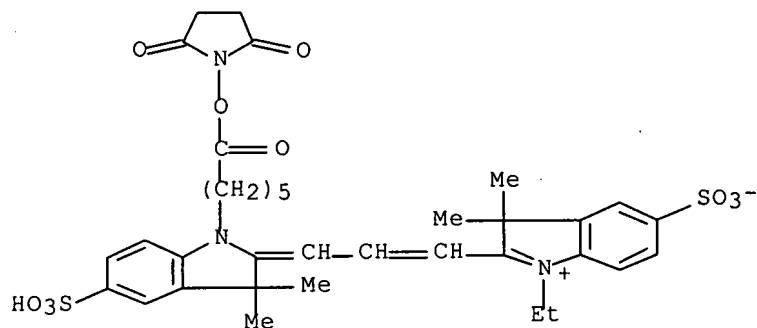
AB The present invention relates to simple method to fabricate DNA hybridization devices based upon adsorptive attachment of oligonucleotides to a pos. charged surface. Such adsorbed oligonucleotide probes form a densely packed monolayer, which retains capacity for base-pair specific hybridization with a solution state nucleic acid target strand to form the duplex. However, both strand dissociation kinetics and the rate of DNase digestion suggest on symmetry grounds that solution-state nucleic acid binds to such adsorbed oligonucleotides to form a highly asym. and unwound duplex, with structural details that are substantially different from that known for the Watson-Crick DNA duplex. This novel nucleic acid duplex form can serve as the basis for a new class of hybridization device and methods for their use. It is also disclosed that new methods of nucleic acid duplex detection can be developed which are based upon the interaction of enzymes and dye labels with the unique structural characteristics of the non-helical duplex described herein. Preferred implementations of the invention include DNA microarrays, bead-based nucleic acid anal., microelectronic devices to detect nucleic acid hybridization and more traditional methods of laboratory anal., including hybridization on membranous and other solid supports.

IT 146368-14-1D, Cy5, conjugates with olidodeoxyribonucleotide  
 146368-16-3D, Cy3, conjugates with olidodeoxyribonucleotide  
 RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (DNA microarrays based on absorptive attachment of oligonucleotide probes to pos. charged surface)

RN 146368-14-1 HCAPLUS  
 CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)



RN 146368-16-3 HCAPLUS  
 CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)



L24 ANSWER 13 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2003:37215 HCAPLUS Full-text  
 DOCUMENT NUMBER: 138:320830  
 TITLE: Geometric and electronic structure of zwitterionic push-pull polyenes for nonlinear optics  
 AUTHOR(S): Geskin, V. M.; Bredas, J. L.  
 CORPORATE SOURCE: Service de Chimie des Matériaux Nouveaux, Centre de Recherche en Electronique et Photonique Moléculaires, Université de Mons-Hainaut, Mons, B-7000, Belg.  
 SOURCE: International Journal of Quantum Chemistry (2003), 91(3), 303-310  
 CODEN: IJQCB2; ISSN: 0020-7608  
 PUBLISHER: John Wiley & Sons, Inc.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 16 Jan 2003  
 AB The authors present a study of the chemical structure of highly polar push-pull conjugated mols. of interest for nonlinear optics, in which purely inductive ammonium/borate substituents, R<sub>3</sub>N<sup>+</sup>/BR<sub>3</sub><sup>-</sup>, are attached to a trans-polyene chain of variable length either directly or via Ph groups. The performance of ab initio Hartree-Fock and Moller-Plesset second order (MP2)

methods is compared with that of the hybrid d. functional theory (DFT) and semiempirical (AM1) Hartree-Fock and CI methods. Taking into account electron correlation at the MP2 level is important to obtain reliable mol. geometries; the hybrid DFT (BH and HLYP functional) results are in close agreement with the MP2 results. Some geometries obtained with the semiempirical methods are in qual. disagreement with the MP2/6-31G results. A chemical rationalization of the optimized structures and the nature of the substituent effect is proposed.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 14 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:826371 HCAPLUS Full-text

DOCUMENT NUMBER: 138:91381

TITLE: Why does a color-developing phenomenon occur on thermal paper comprising of a fluoran dye and a color developer molecule?

AUTHOR(S): Takahashi, Yoshiyuki; Shirai, Ayako; Segawa, Takako; Takahashi, Tatsuya; Sakakibara, Kazuhisa

CORPORATE SOURCE: Advanced Technology Research Laboratory, Oji Paper Company, Tokyo, 135-8558, Japan

SOURCE: Bulletin of the Chemical Society of Japan ( 2002), 75(10), 2225-2231

CODEN: BCSJA8; ISSN: 0009-2673

PUBLISHER: Chemical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:91381

ED Entered STN: 30 Oct 2002

AB The mechanism of the color development on thermal paper, comprising a fluoran dye (S-205) and a color developer mol., such as bisphenol A, was elucidated based on spectroscopic analyses (IR, and NMR) on an isolated black-colored compound prepared by a reaction of S-205 and bisphenol A. We propose that this black-colored compound is, indeed, a color-developing complex (CDC) with a definite molar ratio (S-205:bisphenol A = 1:4) which has been formed between the open-form S-205 (generated by the cleavage of the lactone ring of S-205: zwitterion) and bisphenol A through hydrogen-bonding. The enthalpy gain associated with the formation of CDC plays an important role for black-color formation on thermal paper.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:716235 HCAPLUS Full-text

DOCUMENT NUMBER: 137:247493

TITLE: Zwitterionic derivatives of benzoquinone monoimines, coloring compositions containing same, and use thereof as dyes, particularly as hair dyes

INVENTOR(S): Braunstein, Pierre; Siri, Olivier

PATENT ASSIGNEE(S): Universite Louis Pasteur, Fr.; Centre National de la Recherche Scientifique

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

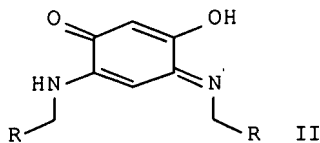
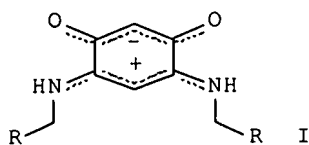
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Serial No.: 10/761,818

WO 2002072533 A1 20020919 WO 2002-FR885 20020312 <--  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
FR 2822152 A1 20020920 FR 2001-3473 20010314 <--  
FR 2822152 B1 20030627  
AU 2002251133 A1 20020924 AU 2002-251133 20020312 <--  
PRIORITY APPLN. INFO.: FR 2001-3473 A 20010314 <--  
WO 2002-FR885 W 20020312 <--  
OTHER SOURCE(S): CASREACT 137:247493; MARPAT 137:247493  
ED Entered STN: 20 Sep 2002  
GI



AB The invention relates to synthetic organic chemical, more particularly to novel zwitterionic derivs. of benzoquinone mono-imines, coloring compns. containing them, and the uses thereof as colorants or dyes, especially hair dyes. Specifically, zwitterionic compds. I [R = alkyl, aryl] are disclosed (see also tautomeric structure II). For instance, treatment of 1,2,4,5-tetraaminobenzene tetra-HCl salt with excess Et<sub>3</sub>N in MeCN followed by 4 equiv PhCOCl gave the corresponding N,N',O,O'-tetraacylated diaminoresorcinol (see Chem Commun., 2002, 208-209). Reduction of this intermediate with excess LiAlH<sub>4</sub> in refluxing THF, followed by MeOH workup and chromatog., gave I [R = Ph] as an air-stable, yellow-brown solid. I [R = CMe<sub>3</sub>] was similarly prepared as a purple solid (with crystal structure data). Several addnl. compds. I [R = alkyl] are claimed. I are not merely dye precursors, but are dyes per se. The subset I [R = C1-4 alkyl], due to the nature of R, are particularly suitable as semi-permanent dyes, resisting 4-5 washings, with slow and steady fading. The subset I [R = aryl, C>4 alkyl] are useful as permanent dyes, remaining fixed for several weeks or months.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 16 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2002:280011 HCAPLUS Full-text  
DOCUMENT NUMBER: 137:109030  
TITLE: Effect of bond-length alternation on the dipole hyperpolarizability of phenol blue  
AUTHOR(S): Serrano, Agostinho; Canuto, Sylvio  
CORPORATE SOURCE: Instituto de Fisica, Universidade de Sao Paulo, Sao Paulo, 05315-970, Brazil  
SOURCE: International Journal of Quantum Chemistry (2002), 87(5), 275-279  
CODEN: IJQCB2; ISSN: 0020-7608

PUBLISHER: John Wiley &amp; Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 15 Apr 2002

AB Phenol blue is a merocyanine dye that may exist in resonance between two extreme forms, a neutral keto form and a zwitterionic, charge-separated enol form. The keto form is stable in the gas phase, while the enol form can be stabilized by solvents. The bond-length alternation is used to monitor the change of the dipole hyperpolarizability of phenol blue continuously from the extreme enol to the other extreme keto forms. Intermediate structures gave the largest value for the first dipole hyperpolarizability. These values are compatible with the exptl. results in different solvents and suggest that phenol blue undergoes structural changes in polar solvents.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:106410 HCAPLUS Full-text

DOCUMENT NUMBER: 136:316617

TITLE: Multichannel Digital Transmission in an Optical Network of Communicating Molecules

AUTHOR(S): Raymo, Francisco M.; Giordani, Silvia

CORPORATE SOURCE: Center for Supramolecular Science, Department of Chemistry, University of Miami, Coral Gables, FL, 33146-0431, USA

SOURCE: Journal of the American Chemical Society (2002), 124(9), 2004-2007

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 10 Feb 2002

AB In present telecommunication networks, information transfer relies on the interplay of optical and elec. signals. Data are communicated optically but processed electronically. Methods to maintain the propagating signals solely at the optical level must be developed to overcome the transmission capacities and speed limits imposed by the electronic components. We have demonstrated that mol. switches can be used to gate optical signals in response to optical signals. We have realized a simple optical network consisting of three light sources, one cell containing a solution of three fluorescent mols., one cell containing a solution of a three-state mol. switch and a detector. The light emitted by the three fluorophores is absorbed by the three states of the mol. switch. Using this simple operating principle, we have shown that multichannel digital transmission can be implemented on an ensemble of communicating mols. relying exclusively on the interplay of optical inputs and optical outputs.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:824281 HCAPLUS Full-text

DOCUMENT NUMBER: 134:2333

TITLE: Rapid dehydration of proteins

INVENTOR(S): Moore, Barry Douglas; Parker, Marie Claire; Halling, Peter James; Partridge, Joann

PATENT ASSIGNEE(S): University of Strathclyde, UK; The University Court of the University of Glasgow

SOURCE: PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent



LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000069887	A2	20001123	WO 2000-GB1854	20000515 <--
WO 2000069887	A3	20010802		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2368824	A1	20001123	CA 2000-2368824	20000515 <--
AU 200049336	A	20001205	AU 2000-49336	20000515 <--
AU 778491	B2	20041209		
BR 2000010538	A	20020219	BR 2000-10538	20000515 <--
EP 1189926	A2	20020327	EP 2000-931377	20000515 <--
EP 1189926	B1	20050420		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003505342	T	20030212	JP 2000-618303	20000515 <--
AT 293634	T	20050515	AT 2000-931377	20000515 <--
PT 1189926	T	20050930	PT 2000-931377	20000515 <--
ES 2241609	T3	20051101	ES 2000-931377	20000515 <--
ZA 2001009314	A	20030212	ZA 2001-9314	20011112 <--
IN 2001CN01574	A	20070309	IN 2001-CN1574	20011112 <--
US 2002168414	A1	20021114	US 2001-7257	20011113 <--
US 7014869	B2	20060321		
US 2006120992	A1	20060608	US 2005-287653	20051128 <--
PRIORITY APPLN. INFO.:			GB 1999-10975	A 19990513 <--
			WO 2000-GB1854	W 20000515 <--
			US 2001-7257	A1 20011113 <--

ED Entered STN: 24 Nov 2000

AB The present invention relates to protein-coated micro-crystals and their method of preparation. The protein-coated micro-crystals may find particular application in preparing enzymes for use as biocatalysts; preparation of therapeutic proteins for use in pharmaceutical formulations; production of cleansing agents comprising enzymes; production of paints, varnishes, coatings, films and the like comprising proteins which impart protective and/or antifouling properties; production of films, polymers, inks, coatings, electrodes and/or optical materials comprising proteins for diagnostic kits and/or biosensor applications; use of proteins for studies of mol. recognition, mol. binding and inhibitor binding in non-aqueous media, and preparation of protein based food additives.

L24 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:675094 HCAPLUS Full-text

DOCUMENT NUMBER: 133:362488

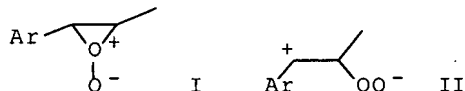
TITLE: Reaction of Singlet Oxygen with trans-4-Propenylanisole. Formation of [2 + 2] Products with Added Acid

AUTHOR(S):: Greer, Alexander; Vassilikogiannakis, Georgios; Lee, Kun-Chun; Koffas, Telly S.; Nahm, Keehyung; Foote, Christopher S.

CORPORATE SOURCE: Department of Chemistry and Biochemistry, University

Serial No.: 10/761,818

SOURCE: of California, Los Angeles, CA, 90095, USA  
Journal of Organic Chemistry (2000), 65(21),  
6876-6878  
CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 133:362488  
ED Entered STN: 27 Sep 2000  
GI



AB The authors report the effects of added acid in the reaction of singlet O with trans-4-propenylanisole (1). The authors provide evidence that solvent acidity modifies the behavior of the transient intermediates. Relative to reactions in aprotic solvent, enhanced dioxetane concns. are observed in MeOH and in nonprotic solvents with acid. The authors suggest a new mechanism that invokes a proton transfer from MeOH and HOBz to perepoxide (I) and zwitterion (II) intermediates.

IT 11121-48-5, Rose bengal

RL: CAT (Catalyst use); USES (Uses)

(photosensitizer; formation of [2 + 2] products with added acid in reaction of singlet oxygen with trans-4-propenylanisole)

RN 11121-48-5 HCAPLUS

CN Rose Bengal (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:256796 HCAPLUS Full-text

DOCUMENT NUMBER: 133:4413

TITLE: Tautomerism of an indoline spiropyran in compressed CO<sub>2</sub>-ethanol mixtures

AUTHOR(S): Zhang, Xifeng; Sui, Qiang; Han, Buxing; Yan, Haike; Wang, Yanqiao

CORPORATE SOURCE: Institute of Chemistry, Chinese Academy of Sciences, Beijing, 100080, Peop. Rep. China

SOURCE: Journal of Supercritical Fluids (2000), 17(2), 171-175

CODEN: JSFLEH; ISSN: 0896-8446

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 21 Apr 2000

AB Thermodyn. and kinetic properties of the tautomerism of an indoline spiropyran in compressed CO<sub>2</sub>-EtOH and cyclohexane-EtOH mixts. were studied at different temps. by using UV-visible spectroscopy. The thermodyn. and kinetic properties of the reaction in CO<sub>2</sub>-EtOH mixts. can be adjusted by the pressure of CO<sub>2</sub>. The rate constant of the reaction depends on the polarity and viscosity of the

solvent. The rate constant of the reaction in the CO<sub>2</sub>-EtOH mixture is higher than that in the cyclohexane-EtOH mixture at the same equilibrium constant (K<sub>c</sub>).

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2000:174035 HCAPLUS Full-text  
 DOCUMENT NUMBER: 132:293457  
 TITLE: The time-resolved spectra of a crowned indolinospirobenzopyran  
 AUTHOR(S): Liu, Shenghua; Wu, Chengtai; Han, Zhenhui; Wang, Wenfeng; Yao, Side  
 CORPORATE SOURCE: Department of Chemistry, Wuhan University, Wuhan, 430072, Peop. Rep. China  
 SOURCE: Science in China, Series B: Chemistry (2000), 43(1), 94-98  
 CODEN: SCBCFQ; ISSN: 1006-9291  
 PUBLISHER: Science in China Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 17 Mar 2000  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The photochromic process of an indolinospiropyran coupled with a crown ether fragment (I) was studied by ns-laser photolysis. A quinonic merocyanine II was formed via an excited singlet state from I; in MeCN solution, the transient absorption of II showed an obvious decay, while a new transient absorption at 440 nm, from isomer III appeared simultaneously. II decay and III formation were accelerated in the presence of alkali metal cation. In contrast, III formation was not observed in the corresponding spiropyran without the crown-ether fragment.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1999:791714 HCAPLUS Full-text  
 DOCUMENT NUMBER: 132:78181  
 TITLE: Theoretical calculations of methylquinolinium tricyanoquinodimethanide (CH<sub>3</sub>Q-3CNQ) using a solvation model  
 AUTHOR(S): Kwon, Ohyun; McKee, Michael L.; Metzger, Robert M.  
 CORPORATE SOURCE: Department of Chemistry, Auburn University, Auburn, AL, 36849-5312, USA  
 SOURCE: Chemical Physics Letters (1999), 313(1,2), 321-331  
 CODEN: CHPLBC; ISSN: 0009-2614  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 16 Dec 1999

AB To better understand the unimol. elec. rectification in  $\gamma$ -(hexadecyl)quinolinium tricyanoquinodimethanide (C<sub>16</sub>H<sub>33</sub>Q-3CNQ),  $\gamma$ -(methyle)quinolinium tricyanoquinodimethanide (MeQ-3CNQ) was studied by semi-empirical SM5.4/AM1 and ab initio (SCRF/SCIPCM/B3LYP/6-31G\*) solvation

models. DFT single-point calcs. agree well with the semi-empirical calcs. MeQ-3CNQ in MeCN may exist in both trans and cis zwitterionic forms; the trans form is 3.1 kcal mol<sup>-1</sup> more stable than the cis form, and separated from it by a 11.3 kcal mol<sup>-1</sup> barrier. The conformational min. in solution do not correspond to min. in the gaseous state. The calculated solvated-phase dipole moment of MeQ-3CNQ is in good agreement with the measured moment of Cl<sub>6</sub>H<sub>3</sub>Q-3CNQ.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 23 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:681972 HCAPLUS Full-text

DOCUMENT NUMBER: 132:22531

TITLE: Selection of an analysis wavelength: an interesting example involving solvatochromism and the zwitterionic Dimroth-Reichardt's Betaine ET-30 dye

AUTHOR(S): Deng, Taihe; Acree, William E. Jr.

CORPORATE SOURCE: Department of Chemistry, University of North Texas, Denton, TX, 76203-5070, USA

SOURCE: Journal of Chemical Education (1999), 76(11), 1555-1556

CODEN: JCEDA8; ISSN: 0021-9584

PUBLISHER: Division of Chemical Education of the American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 27 Oct 1999

AB UV-visible absorption spectroscopy provides a very convenient exptl. means for determining percentage compns. and solution concns. of unknown samples, for measuring reaction rate consts., and for determining the stoichiometry and equilibrium consts. of metal-ligand complexes. Two of the expts. on spectroscopic methods that appeared in the Journal of Chemical Education, involving the simultaneous determination of Cr(III) and Co(II) in mixts., are performed by students in the Instrumental Anal. course of the Department of Chemical at the University of North Texas, Denton, TX. Students make a few calibration measurements with the photodiode array spectrophotometer and record several absorption spectra to determine suitable wavelengths for select chems. One of the compds. examined is the zwitterionic Dimroth-Reichardt's ET-30 betaine dye, which exhibits rather pronounced solvatochromic behavior.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 24 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:487427 HCAPLUS Full-text

DOCUMENT NUMBER: 131:99519

TITLE: Sample buffer and methods for high resolution gel electrophoresis of denatured nucleic acids

INVENTOR(S): Updyke, Timothy V.; Bogoev, Roumen A.; Ke, Song-Hua

PATENT ASSIGNEE(S): Novex, USA

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9937813	A1	19990729	WO 1999-US1240	19990122 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,				

Serial No.: 10/761,818

DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,  
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,  
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,  
TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,  
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,  
CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6057106 A 20000502 US 1998-12257 19980123 <--  
CA 2318062 A1 19990729 CA 1999-2318062 19990122 <--  
AU 9922393 A 19990809 AU 1999-22393 19990122 <--  
AU 741179 B2 20011122  
EP 1049804 A1 20001108 EP 1999-902407 19990122 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI

JP 2002501183 T 20020115 JP 2000-528719 19990122 <--  
AU 760805 B2 20030522 AU 2002-15671 20020219 <--

PRIORITY APPLN. INFO.:

US 1998-12257 A 19980123 <--  
AU 1999-22393 A3 19990122 <--  
WO 1999-US1240 W 19990122 <--

ED Entered STN: 06 Aug 1999

AB A sample buffer and method are provided for preparing denatured nucleic acids and applying them to gel electrophoresis systems. The sample buffer and method enhance band flatness and sharpness, resulting in higher resolution and throughput.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 25 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:687546 HCAPLUS Full-text

DOCUMENT NUMBER: 130:3585

TITLE: 13C NMR and crystallographic study of thymolsulfonephthalein

AUTHOR(S): Santillan, Rosa; Farfan, Norberto; Castillo, Dolores; Gutierrez, Atilano; Hopfl, Herbert

CORPORATE SOURCE: Departamento de Quimica, Centro de Investigacion y de Estudios Avanzados del IPN, Mexico, Mex.

SOURCE: Chemistry--A European Journal (1998), 4(10), 1904-1909

CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 30 Oct 1998

AB The correct structure of the undissociated thymolsulfonephthalein was not determined unequivocally and 3 possible resonance structures were proposed so far: zwitterionic, quinoid, or lactonoid. The present 13C NMR and x-ray crystallog. study resolves this problem and it can be explicitly shown that the correct structure is zwitterionic with some delocalization of pos. charge into the phenol rings. The correct assignment of the completely dissociated blue basic form is also included and permits the conclusion that a 4-fold-charged resonance structure is as probable as a quinoid one.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:192962 HCAPLUS Full-text

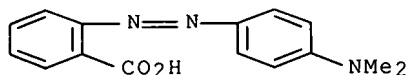
Correction of: 1998:10324

DOCUMENT NUMBER: 128:198566

Correction of: 128:134208

TITLE: Low temperature laser flash photolysis and spectral

\* AUTHOR(S): studies of Methyl Red  
 Mukherjee, Sanjib; Bera, Subhash Chandra  
 CORPORATE SOURCE: Department Chemistry, Jadavpur University, India  
 SOURCE: Journal of the Chemical Society, Faraday Transactions  
 (1998), 94(1), 67-71  
 CODEN: JCFTEV; ISSN: 0956-5000  
 PUBLISHER: Royal Society of Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 03 Apr 1998  
 AB The low temperature flash photolysis and spectral studies of Methyl red {2-[4-(dimethylamino)phenylazo]benzoic acid} show the presence of four conformers in equilibrium. Besides the common cis and trans conformers, there are two types of quinoid zwitterions. The absorption intensity at room temperature is mostly contributed by quinoid zwitterions. In Me cyclohexane the absorption maximum of the trans conformer is at 420 nm and those of two zwitterions are at 475 and 455 nm, resp. From flash excitation spectra, the cis conformer appears to show an absorption maximum at 350 nm. The distribution of the species changes on flash excitation and the normal distribution is restored via one or more equilibrium steps as indicated by the neg. activation energy of the process.  
 IT 493-52-7, Methyl Red  
 RL: PRP (Properties)  
 (low temperature laser flash photolysis and spectral study of)  
 RN 493-52-7 HCAPLUS  
 CN Benzoic acid, 2-[2-[4-(dimethylamino)phenyl]diazenyl]- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

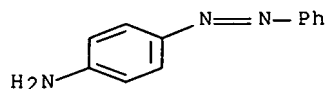
L24 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1998:132959 HCAPLUS Full-text  
 DOCUMENT NUMBER: 128:250538  
 TITLE: Low-temperature flash photolysis of 4-aminoazobenzene and 4-dimethylaminoazobenzene  
 AUTHOR(S): Mukherjee, Sanjib; Bera, Subhash Chandra  
 CORPORATE SOURCE: India  
 SOURCE: Journal of Photochemistry and Photobiology, A: Chemistry (1998), 113(1), 23-26  
 CODEN: JPPCEJ; ISSN: 1010-6030  
 PUBLISHER: Elsevier Science S.A.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 06 Mar 1998  
 AB Using laser flash photolysis, the photoisomerization and cis-trans equilibrium relaxation of 4-aminoazobenzene and 4-dimethylaminoazobenzene was studied. At low temperature, cis conformers on photoexcitation produced trans conformers along with a fast-decaying intermediate absorbing in 450-490 nm region. These short-lived intermediates were assigned as their zwitterions.  
 IT 60-09-3, 4-Aminoazobenzene 60-11-7, 4-Dimethylaminoazobenzene  
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC

(Process); RACT. (Reactant or reagent)

(photoisomerization and cis-trans equilibrium relaxation of aminoazobenzene and dimethylaminoazobenzene studied by flash photolysis)

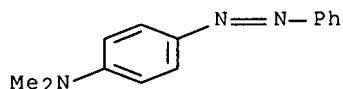
RN 60-09-3 HCAPLUS

CN Benzenamine, 4-(2-phenyldiazenyl)- (CA INDEX NAME)



RN 60-11-7 HCAPLUS

CN Benzenamine, N,N-dimethyl-4-(2-phenyldiazenyl)- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:10324 HCAPLUS Full-text

DOCUMENT NUMBER: 128:134208

TITLE: Low temperature laser flash photolysis and spectral studies of Methyl Red

AUTHOR(S): Mukherjee, Sanjib; Bera, Subhash Chandra

CORPORATE SOURCE: Department of Chemistry, Jadavpur University, India

SOURCE: Journal of the Chemical Society, Faraday Transactions (1998), 94(1), 67-71

CODEN: JCFTEV; ISSN: 0956-5000

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 09 Jan 1998

AB The low temperature flash photolysis and spectral studies of Methyl red {2-[4-(dimethylamino)phenylazo]benzoic acid} show the presence of four conformers in equilibrium. Besides the common cis and trans conformers, there are two types of quinoid zwitterions. The absorption intensity at room temperature is mostly contributed by quinoid zwitterions. In Me cyclohexane the absorption maximum of the trans conformer is at 420 nm and those of two zwitterions are at 475 and 455 nm, resp. From flash excitation spectra, the cis conformer appears to show an absorption maximum at 350 nm. The distribution of the species changes on flash excitation and the normal distribution is restored via one or more equilibrium steps as indicated by the neg. activation energy of the process.

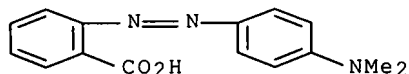
IT 493-52-7, Methyl Red

RL: PRP (Properties)

(low temperature laser flash photolysis and spectral study of)

RN 493-52-7 HCAPLUS

CN Benzoic acid, 2-[2-[4-(dimethylamino)phenyl]diazenyl]- (CA INDEX NAME)

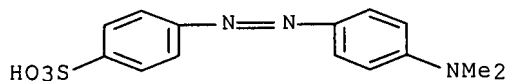


REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 29 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1993:674505 HCAPLUS Full-text  
 DOCUMENT NUMBER: 119:274505  
 TITLE: Manufacture of high-surface area silica gel  
 INVENTOR(S): Cohen, Howard J.  
 PATENT ASSIGNEE(S): SCM Chemicals, Inc., USA  
 SOURCE: U.S., 8 pp. Cont. of U.S. Ser. No. 615,254, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5229096	A	19930720	US 1992-850151	19920312 <--
			US 1990-615254	B1 19901119 <--

PRIORITY APPLN. INFO.:  
 ED Entered STN: 25 Dec 1993  
 AB The SiO<sub>2</sub> gel is manufactured by mixing an alkali silicate, excess acid, and a polymerization modifier so as to form a preliminary gel and leaching soluble material from the preliminary gel before drying occurs. The gel prepared has high surface area, pore volume, and a large average pore diameter  
 IT 547-58-0, Methyl orange  
 RL: USES (Uses)  
 (in silica gel manufacture, for high surface area and pore volume)  
 RN 547-58-0 HCAPLUS  
 CN Benzenesulfonic acid, 4-[2-[4-(dimethylamino)phenyl]diazenyl]-, sodium salt (1:1) (CA INDEX NAME)



● Na

L24 ANSWER 30 OF 30 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1990:561887 HCAPLUS Full-text  
 DOCUMENT NUMBER: 113:161887  
 TITLE: Anionic and zwitterionic photophysical effects in some pyridinium oxazole laser dyes  
 AUTHOR(S): Kubin, R. F.; Henry, R. A.; Pietrak, M. E.; Bliss, D. E.; Hall, J. H.



Serial No.: 10/761,818

CORPORATE SOURCE: Res. Dep., Nav. Weapons Cent., China Lake, CA, 93555,  
USA

SOURCE: Laser Chemistry (1990), 10(4), 247-58  
CODEN: LSCHDB; ISSN: 0278-6273

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 27 Oct 1990

AB Laser output is studied by changing the anion of pyridinium oxazole dyes from the tosylate to the mesylate salt. Anion changes were modest and, with one exception, all zwitterions tested were no better or not as good as the tosylate salt with respect to lasing output. Both the mesylate salt and the zwitterion variants have greatly improved lifetimes if there is no fluorine auxochrome in the basic dye.

## Search History

L1               STRUCTURE UPLOADED  
L2               0 SEA SSS SAM L1  
L3               7 SEA SSS FUL L1

FILE 'CAPLUS' ENTERED AT 09:43:00 ON 19 APR 2007  
L4               2 SEA ABB=ON   PLU=ON   L3

FILE 'MARPAT' ENTERED AT 09:45:06 ON 19 APR 2007  
L5               0 SEA SSS SAM L1  
L6               0 SEA SSS FUL L1

FILE 'USPATFULL' ENTERED AT 09:46:01 ON 19 APR 2007  
L7               1 SEA ABB=ON   PLU=ON   L3

FILE 'BEILSTEIN' ENTERED AT 09:48:24 ON 19 APR 2007  
L8               0 SEA SSS SAM L1  
L9               0 SEA SSS FUL L1

FILE 'HCAPLUS' ENTERED AT 09:49:19 ON 19 APR 2007  
L10              1928 SEA ABB=ON   PLU=ON   ZWITTERIONS+OLD/CT  
L11              161200 SEA ABB=ON   PLU=ON   DYES+OLD,NT/CT  
L12              429672 SEA ABB=ON   PLU=ON   ISOTOPES+OLD,NT/CT  
L13              36 SEA ABB=ON   PLU=ON   L10 AND L11  
L14              1 SEA ABB=ON   PLU=ON   L13 AND L12  
L15              8798 SEA ABB=ON   PLU=ON   FLUORESCENT INDICATORS+OLD,NT/CT  
L16              2 SEA ABB=ON   PLU=ON   L13 AND L15  
L17              3 SEA ABB=ON   PLU=ON   L10 AND L15  
L18              3 SEA ABB=ON   PLU=ON   (L14 OR L16 OR L17)  
L19              34 SEA ABB=ON   PLU=ON   L13 NOT L18  
L20              12 SEA ABB=ON   PLU=ON   L19 AND P/DT  
L21              10 SEA ABB=ON   PLU=ON   L20 AND (PY<=2004 OR AY<=2004 OR PRY<=2004)

L22              24 SEA ABB=ON   PLU=ON   L19 NOT L21  
L23              17 SEA ABB=ON   PLU=ON   L22 AND PY<=2004  
L24              30 SEA ABB=ON   PLU=ON   (L18 OR L21 OR L23)  
L25              175 SEA ABB=ON   PLU=ON   DRATZ E?/AU  
L26              369 SEA ABB=ON   PLU=ON   GRIECO P?/AU  
L27              2 SEA ABB=ON   PLU=ON   L25 AND L26

L28              2 SEA ABB=ON   PLU=ON   L4 NOT L27

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